

WHAT IS CLAIMED IS:

1. A sheet processing apparatus comprising:

a compiling tray for forming a sheet bundle by sequentially

5 collecting sheets supplied thereto;

a sheet alignment portion for aligning sheets supplied  
to said compiling tray; and

a pressing member, provided in such a way as to be able  
to advance and retract in a direction of thickness of the sheets  
10 collected in said compiling tray, for holding sheets already  
collected in said compiling tray and aligned in said sheet  
alignment portion when a new sheet is supplied to said compiling  
tray.

15 2. The sheet processing apparatus according to claim  
1, wherein

said pressing member is provided in such a way as to advance  
and retract between an advancing position, at which said pressing  
member presses sheets on said compiling tray, and a retreating  
20 position at which said pressing member does not hinder the sheets  
on said compiling tray from being discharged therefrom.

3. The sheet processing apparatus according to claim  
1, further comprising:

25 a guide member, provided in such a way as to be able to

be interlocked with said pressing member, for guiding a sheet newly supplied to said compiling tray.

4. The sheet processing apparatus according to claim  
5 1, wherein

advancing and retracting operations of said pressing member vary according to whether or not folding is performed on sheets newly supplied to said compiling tray, and according to what supply portion supplies sheets newly to said compiling  
10 tray, or according to a thickness of sheets newly supplied to said compiling tray.

5. The sheet processing apparatus according to claim  
1, wherein

15 said pressing member presses sheets already collected on said compiling tray before a leading end of a sheet newly supplied to said compiling tray touches the sheets already collected thereon, and wherein said pressing member goes away from the collected sheets before a rear end of the newly supplied  
20 sheet is discharged onto said compiling tray.

6. A sheet processing apparatus comprising:

a compiling tray for receiving and stacking conveyed sheets;

25 a longitudinal reference wall for performing alignment

of sheets stacked on said compiling tray by aligning rear ends of the sheets; and

a longitudinal alignment portion for changing a reference position in a direction of thickness of sheets stacked on said  
5 compiling tray, for providing a predetermined conveyance force to sheets sequentially supplied to said compiling tray, and for pushing said sheets against said longitudinal reference wall.

10 7. The sheet processing apparatus according to claim 6, wherein

said longitudinal alignment portion conveys a sheet to said longitudinal reference wall by using a member that turns by simultaneously touching a surface of said sheet.

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8. The sheet processing apparatus according to claim 6, wherein

the reference position in said longitudinal alignment changes according to the number of sheets stacked on said  
20 compiling tray.

9. The sheet processing apparatus according to claim 6, wherein

said longitudinal alignment portion conveys sheets to said  
25 longitudinal reference wall when placed at a sheet alignment

position, wherein said longitudinal alignment portion once moves from said sheet alignment position to a sheet pressing position in synchronization with predetermined sheet conveying timing and thereafter returns to said sheet alignment position.

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10. A sheet-bundle alignment method for forming a sheet bundle by aligning rear ends of sheets received and stacked on said compiling tray, the method comprising:

pushing a rotational member against a surface of a sheet  
10 and conveying sheets to a reference wall on which rear ends of sheets are aligned;

counting sheets supplied to said compiling tray; and  
changing a reference position of said rotational member  
in a direction of thickness of a sheet when the number of sheets  
15 to be counted exceeds a predetermined value.

11. The sheet-bundle alignment method according to claim 10, wherein:

the reference position to be changed is changed in a  
20 direction of thickness of the sheet in such a way as to be away from the sheet; and

after the reference position is changed, the reference position is further changed with respect to the direction of thickness of the sheet with predetermined timing by repeatedly  
25 employing an approaching direction and a separating direction.

12. A sheet processing apparatus comprising:

a compiling tray for receiving and stacking supplied sheets;

5 a longitudinal reference wall for performing alignment of sheets stacked on said compiling tray by aligning rear ends of said sheets;

a first moving-aside unit for moving said sheets aside toward said longitudinal reference wall at a rear end side of  
10 said sheets supplied to said compiling tray; and

a second moving-aside unit for moving said sheets aside toward said longitudinal reference wall at a leading end side of each of said sheets, wherein:

said second moving-aside unit is provided closer to said  
15 leading end side than said first moving-aside unit; and

a conveyance force of said second moving-aside unit is used for moving said sheets aside toward said longitudinal reference wall, and set therein in such a way as to be variable.

20 13. The sheet processing apparatus according to claim 12, wherein

said second moving-aside unit is enabled to move in a direction of thickness of a sheet bundle accommodated in said compiling tray.

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14. The sheet processing apparatus according to claim  
12, wherein

said second moving-aside unit changes a position thereof  
in a direction of thickness of a sheet bundle according to the  
5 sheet bundle stacked on said compiling tray.

15. The sheet processing apparatus according to claim  
12, wherein

said second moving-aside unit is set in a manner that varies  
10 according to whether or no folding is performed on sheets stacked  
on said compiling tray.

16. A sheet bundle alignment method for forming a sheet  
bundle by aligning rear ends of conveyed sheets received and  
15 stacked by said compiling tray, the method comprising:

pushing a rotary member against a surface of a sheet in  
synchronization with supply of the sheet and conveying sheets  
to a reference wall for aligning the rear end of a sheet;

grasping a situation of sheets supplied to said compiling  
20 tray; and

changing a conveyance force of said rotary member according  
to the situation of said sheets.

17. The sheet bundle alignment method according to claim  
25 16, wherein

the conveyance force is changed by changing a distance of said rotary member from a sheet stacking surface of said compiling tray.

- 5        18. A sheet processing apparatus comprising:
- a compiling tray for receiving and stacking supplied sheets;
- a counting unit for counting sheets supplied to said compiling tray; and
- 10        an execution unit for performing a predetermined operation on said sheets according to a count obtained by said counting unit, wherein
- in a case that said sheets supplied to said compiling tray have undergone predetermined post-processing, said counting
- 15        unit counts said sheets by converting one sheet of said sheets into  $n$ -sheets ( $n > 1$ ).

         19. The sheet processing apparatus according to claim 18, wherein

- 20        said post-processing is folding to be performed on said sheets.

         20. The sheet processing apparatus according to claim 18, wherein:

- 25        said execution unit is a member for guiding said sheets

toward a longitudinal reference wall; and

said execution unit performs an operation of moving in a direction of thickness of said sheets according to a count obtained by said counting unit.

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21. The sheet processing apparatus according to claim 18, wherein

a value of the "n" ( $n > 1$ ), which is converted by said counting unit, varies according to a kind of said post-processing, a  
10 kind of said sheet, a size of said sheet, and a stacking condition of said sheets to which the post-processing is performed.

22. A sheet bundle aligning method for forming a sheet bundle by aligning conveying direction end portions of sheets  
15 supplied to said compiling tray, on which the conveyed sheets are stacked, the method comprising:

counting sheets supplied to said compiling tray;

correcting the number of said counted sheets;

pushing a rotary member against a surface of a sheet in  
20 synchronization with said sheet, and conveying said sheet to said reference wall for aligning the conveying direction end portions; and

changing a conveyance force of said rotary member according to the corrected number of sheets.

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23. The sheet bundle alignment method according to claim  
22, wherein

the conveyance force is changed by changing a distance  
of said rotary member from a sheet stacking surface of said  
5 compiling tray.